MANAGEMENT CASE STUDY
Public Housing Management Assessment Program

U.S. Department of Housing and Urban Development Office of Policy Development and Research May 9, 1996

## Case Study Cover Sheet

This case study of the Public Housing Management Assessment Program (PHMAP) was prepared by the Office of Policy Development and Research (PD&R) in the U.S. Department of Housing and Urban Development (HUD). Margery A. Turner, Deputy Assistant Secretary for Research, Evaluation and Monitoring, PD&R, and MaryAnn Russ, Director, Office of Assisted Housing, Office of Public and Indian Housing (PIH) directed the preparation of this paper. The following staff contributed: Roger Braner (PIH), John Carson (PD&R), Wanda Funk (PIH), Kevin Neary (PD&R), Jean Lin Pao (PD&R), William Thorson (PIH), and Elena Van Meter (PD&R).

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The PHMAP case study illustrates a Federal management initiative to improve performance by local government partners. Many Federal programs involve the local administration of Federal funds. Such programs pose the administrative challenge of ensuring effective management while permitting local discretion. HUD's PHMAP program provides an example that may be of interest Federal agencies, such as Labor, Health and Human Services, Commerce, and others seeking to promote effective local administration of Federal resources.

## PUBLIC HOUSING MANAGEMENT ASSESSMENT PROGRAM

#### Context

The Public Housing Management Assessment Program (PHMAP, pronounced FEE-map) resulted from an effort by the Department of Housing and Urban Development (HUD) to improve the management of public housing. The public housing program operates more than 1.4 million housing units around the country. The Federal government, through HUD, is the major funder of the program, but the actual day to day operations of public housing are administered by about 3,200 local public housing agencies (PHAs).

Within HUD, the public housing program is administered by the Office of Public and Indian Housing (PIH). PIH has approximately 1,300 full time equivalent employees. In addition to the public housing program, PIH is responsible for administering the Section 8 housing assistance program. Overall, the fiscal year 1995 funding level for program administered by PIH was about \$14.5 billion. The principal programs for public housing were funded in fiscal year 1995 as follows: modernization, \$2.9 billion; operating subsidies, \$2.9 billion; drug elimination, \$290 million; Indian housing, \$282 million; and revitalization of distressed public housing, \$500 million.

Most of the public housing stock was constructed between the 1950s and the 1980s, and very little public housing has been constructed in recent years. The primary costs associated with public housing now are those necessary to operate and modernize the existing stock. Since most public housing residents have very low incomes, the rents they pay result in revenues that are far less than the costs of operating the units they live in. Thus, HUD provides funding to the PHAs to subsidize program operations and modernization.

The PHAs themselves own and manage public housing. They collect rents, maintain waiting lists, fill vacancies, perform maintenance, provide tenant services, and carry out the other tasks necessary to manage rental housing. HUD has an oversight responsibility, however. HUD needs to ensure that its subsidies are well-used and that the public housing program provides low-income Americans with the decent, safe, and sanitary housing that Congress intended.

Historically, HUD has performed this oversight function through regulation and monitoring. By regulation, HUD specifies how PHAs must act in administering the programs that subsidize public housing. HUD field staff located in offices throughout the country, make monitoring visits to PHAs. In these visits, they inspect units and review documents to make sure that the PHAs are administering the program effectively.

This traditional approach to managing Federal programs has some drawbacks. For one thing, in a national program it can be difficult to ensure that HUD is applying the same standards to PHAs in different parts of the country. PHMAP originally was developed as a means of providing uniform objective standards for PHAs across the country.

The approach that emphasizes monitoring also tends to be expensive, because it requires significant staff preparation and travel for intensive reviews of PHA operations. And, this expense may be misplaced. As regulations proliferate, the monitoring approach sometimes may overemphasize process at the expense of performance. In public housing, monitors and PHAs often spent a great deal of energy in making sure that rather minor regulations were complied with rather than in ensuring that the housing was managed well.

During the 1980's, HUD began a "risk assessment" approach to monitoring. The theory behind risk assessment is that if you have limited staff resources, it is better to focus the resources where you think you are most likely to have problems rather than to spread them evenly across the board. In about 1987, HUD began an administrative approach known as the Decontrol Program as a means of furthering the risk assessment approach. In the Decontrol Program, PHAs that were determined to be well-performing were subject to less frequent intensive monitoring.

To be determined to be well-performing in the Decontrol Program, a PHA had to perform well on management criteria, many of which are similar to those currently used in PHMAP. The Decontrol Program was successful in focusing resources on the PHAs that were at high risk of mismanagement. However, the program did have some problems. Notably, an audit by the Inspector General uncovered some fraud in some PHAs that had been determined to be good performers. This caused the program to be suspended and for the Department to re-examine this approach. This re-examination led to the development of PHMAP.

## Development of Indicators

During the late 1980's, HUD convened a working group of public housing practitioners to reappraise the criteria used in the Decontrol Program and to identify ways of better identifying and tracking well-performing PHAs. HUD used the criteria and procedures that emerged from this working group as the basis for a legislative proposal that became PHMAP.

PHMAP was authorized by Section 502 of the National Affordable Housing Act (NAHA) of 1990. The legislation identified seven specific indicators:

- 1. number and percent of vacancies
- 2. amount and percent of modernization funds unspent
- 3. percentage of rents uncollected
- 4. energy consumption
- 5. average turnaround time for vacant units
- 6. proportion of work orders outstanding
- 7. percent of units inspected.

These seven statutory indicators emphasized performance with regard to maintaining high levels of occupancy, maintaining and modernizing the stock, collecting the rents, and conserving energy. Notably, all of these indicators are objective and capable of being quantified. They also all are strictly management issues and avoid compliance issues. The legislation also specified that the Secretary of HUD could identify other indicators.

The Department published a proposed rule on April 17, 1991. That proposed rule contained 32 PHA performance indicators and numerous sub-indicators. Much of the comment on the proposed rule, primarily by PHAs and interest groups, was that HUD had proposed too many indicators and that many of the indicators were designed to assess compliance with program policies and regulations rather than measure operational effectiveness.

Congress then amended Section 502(a) by including language in HUD's 1992 Appropriations Act that limited PHMAP to the seven indicators in the NAHA Act, plus a maximum of five others. To implement PHMAP, the Department published an Interim Rule on January 17, 1992. It required PHAs with 500 or more units to submit a PHMAP certification to HUD by March 2, 1992, based on the PHA's 1991 operations. Participation by smaller PHAs was

phased in. The final group of PHAs was required to submit certifications covering the fiscal year that began in April 1992. This interim rule continues to govern the program.

The Department has continued informally to receive a lot of public comments on the Interim Rule. PHAs and public housing interest groups have made suggestions for revising the indicators. In preparing a final rule the Department has taken these comments into account and also has convened a working group of interested parties, including PHAs of all sizes and performance levels. As part of the process of preparing the proposed rule, HUD undertook major consultation with representatives of public interest groups and public housing agencies in November 1993 and again in January 1994. The Department then produced and tested a revised PHMAP in about 45 PHAs around the nation.

This process has resulted in a proposed rule, which was published in the Federal Register on May 6, 1996.

#### Indicators of Outcome/Results

The PHMAP Indicators . PHMAP has been operating under an interim rule that was published on January 17, 1992. That rule established indicators related to 12 aspects of public housing management:

- 1. Maintaining a high occupancy rate
- 2. Modernizing the stock
- 3. Collecting Rents
- 4. Using Energy efficiently
- 5. Preparing and leasing vacant units
- 6. Responding to requests for maintenance
- 7. Inspecting units and systems annually
- 8. Keeping Tenant accounts receivable low
- 9. Maintaining appropriate levels of operating reserves
- 10. Keeping operating expenses within resources
- 11. Carrying out a program of Resident Initiatives
- 12. Maintaining a capacity to develop additional units

As currently implemented, three of these 12 indicators are divided into components so that in all there are 22 separate variables that make up the PHMAP score. The various indicators and components are given different weights in compiling an overall PHMAP score. The following table summarizes the indicators, components, and weights.

# TABLE 1 PHMAP Indicators and Components

- 1. Number and percentage of vacant units (indicator weight = 3)
- 2. Modernization (indicator weight = 2)
- a. unexpended funds more than 3 years old (component
  weight = 2)
- b. timeliness of obligation of funds (component weight =
  1)
  - c. contract administration (component weight = 1)
  - d. quality of physical work (component weight = 3)
  - e. budget controls (component weight = 1)
- 3. Rents Uncollected as a percent of total rents (indicator weight = 3)

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- 4. Annual energy consumption compared with 3 year rolling average (indicator weight = 1)
- 5. Unit turnaround -- average time to repair and rent vacant units (indicator weight = 2)

## TABLE 1 (continued) PHMAP Indicators and Components

- 6. Outstanding work orders -- percent of workorders outstanding and reduction in time to respond to workorder requests (indicator weight = 1)
- 7. Annual inspection and condition of units and systems (indicator weight = 3)
- a. System to track inspection and repair (component weight
  = 1)
- b. percent of units inspected last year (component weight
  = 1)
  - c. correction of unit deficiencies (component weight = 3)
    - d. inspection and repair of systems (component weight = 3)
- 8. Tenant Accounts receivable -- percent uncollected for the period (indicator weight = 1)
- 9. Operating expenses as % of maximum allowed (indicator weight = 1)
- 10. Routine operating expenses less than operating income and subsidy (indicator weight = 1)
- 11. Resident initiatives -- has PHA undertaken a series of initiatives to support resident safety and improvement? (indicator weight = 3)
- 12. Development (indicator weight = 1)
- a. quality of contract administration (component weight =
  1)
  - b. timeliness of development (component weight = 2)
  - c. quality of work (component weight = 3)
  - d. budget controls (component weight = 1)

The indicators vary somewhat in quality. Most are quantitative and outcome-oriented, as the average percent of units that are vacant, whether modernization funds are unexpended after three years, and the average time to turn around a vacant unit. But some of the indicators are qualitative and process-oriented, as whether the PHA has a system to track unit inspections, whether it has undertaken resident initiatives, and the quality of its administration of development contracts. The data to support PHMAP come from the PHA management systems, and PHAs must certify to their accuracy.

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The weights for the indicators are somewhat arbitrary, but rational. They did not result from a statistically-oriented quantitative management review, but rather through a reasoned discussion by the public housing community. In essence, the

process was one that determined, for example, that turning around vacant units and collecting the rents were three times as important as energy conservation.

In calculating PHMAP scores, each PHA receives a grade on a scale of "A" to "F" on each of the 22 variables, based on its actual performance data. For example, a PHA with a vacancy rate below 1% would receive a grade of "A." A PHA with a vacancy rate of more than 8% would receive an "F." This letter grade then is converted to a numeric score as follows:

- A = 10.0 points, vacancy rate 1% or less
- B = 8.5 points, vacancy rate of 1 to 2%
- C = 7.0 points, vacancy rate of 2 to 3%
- D = 5.0 points, vacancy rate of 3 to 6%
- E = 3.0 points, vacancy rate of 6 to 8%
- F = 0.0 points, vacancy rate greater than 8%.

(This description is somewhat simplified. See Attachment A which contains that PHMAP regulations for a complete description of how the scores are calculated.)

In the modernization, annual inspection, and development indicators, the components then are weighted and summed to generate an overall score for the indicator. Then the scores on the 12 indicators are weighted and summed to generate a total score. The maximum possible score for a PHA is 220 points. Each PHA's PHMAP total score is then expressed as a percentage of the total possible points. PHAs that score 90 percent or higher are considered to be high performers. Those that score between 60 and 90 percent are considered standard, and those that score below 60 percent are considered to be troubled. Figure 2 shows the proportion of PHAs in different size categories by their PHMAP rating.

TABLE 2
PHMAP Rating by PHA Size

	Number of units managed				
	Less than			4,000	
PHMAP Rating	500	<u>500-1,249</u>	1,250-3,999	<u>or More</u>	
High performer	54%	52%	42%	41%	
Standard	44%	44%	55%	41%	
Troubled	2%	6%	3%	18%	

Regardless of its overall PHMAP score, a PHA that scores below 60 percent on the modernization indicator is considered to be "mod-troubled." Managing the process of improving the housing stock is considered to be of such importance that HUD tries to ensure that every PHA has the capacity to carry out modernization.

<u>Does PHMAP Work?</u>. The foregoing described how PHMAP scores are generated and generally how PHAs score on PHMAP. PHMAP's effectiveness as a management tool, however, depends on its accuracy and its ability to provide incentives to improve. Among the questions related to assessing its effectiveness, then, are:

- o Is it reliable -- are the data upon which PHMAP scores are based accurate and consistently reported?
- o Does it provide the right incentives -- do PHAs improve their management by trying to improve their PHMAP scores?
- o Is it valid -- are PHAs with higher scores better managed than those with lower scores?

PHMAP has not yet been the subject of a comprehensive evaluation, so HUD has no definitive answer to these questions. Feedback from PHAs, informal assessments, and one small study by the Office of the Inspector general have suggested some problems with PHMAP. However, the general working conclusion in HUD is that PHMAP is successful in identifying the PHAs with management problems so that they can receive remedial treatment.

The data upon which PHMAP are based are gathered by the PHAs themselves. Thus, the overall reliability of the system depends on whether PHAs gather and report information accurately and consistently (HUD field staff are required to conduct confirmatory reviews with regard to PHMAP data, so the data are subject to verification.) HUD's Office of the Inspector General reviewed PHMAP scores for 12 PHAs in FY 1992 and found some problems with the data that resulted in inaccurate and inconsistent scores. Although this audit was done during PHMAP's first year and although reporting has undoubtedly improved, incorrect data continue to be a matter of concern for HUD.

PHAs have an incentive to have high PHMAP scores. They make the executive director and the PHA look good and earn the PHA some regulatory relief. Self-certified PHMAP data are subject to confirmatory reviews by HUD field staff, but resources prevent staff from reviewing most PHAs in any year. Moreover, the HUD field may have an incentive to want to boost PHMAP scores. Having too many PHAs on the troubled list may suggest a management problem in the field office and may also increase the field office's work load resulting from the need to develop a memorandum of agreement or improvement plan with additional PHAs. However, before PHAs can be taken off of the troubled list, they now must have a confirmatory review. This represents a significant effort to discourage the reporting of erroneous data.

A related problem with the reliability of the data is whether PHMAP indicators are susceptible to "gaming." For example, the base against which vacant units are calculated excludes units that are scheduled for modernization. It could be possible for a PHA to show a good occupancy rate by manipulating its modernization schedule.

Similar to the gaming issue is the types of incentives that PHMAP provides. Ideally, a PHA with a low score would want to improve its score and by so doing will improve its management. The above modernization example, provides an example of PHMAP's possibly providing the wrong type of incentive. To maintain a high occupancy rate, a PHA might be tempted to keep units in modernization status, which is contrary to good management. Or, to achieve a good score with regard to maintenance workorders, a PHA might be tempted to keep some types of work off the workorder system, thus losing valuable management information.

And finally, there are questions with regard to PHMAP's validity -- that is, are PHAs that score higher better managed than PHAs that score lower? One issue here is whether PHMAP contains all of the relevant variables. For example, it does not contain an outcome indicator on crime control, procurement, or customer satisfaction. If these aspects of operations are thought to be the sort of thing that a well-managed PHA cannot fail to address, then PHMAP could be deficient. PHMAP also focuses on management, rather than on some important compliance issues. Thus, a PHA could offer well-managed housing, but still perform rather poorly with regard to some compliance issues. Also, PHMAP is not an absolute management performance standard. "Well-managed" means a well-managed PHA. Because the PHMAP standards do not take into account the management performance of private housing, there is no way to tell whether a well-managed PHA is actually well-managed housing relative to comparable housing in the private sector.

#### Use and Impact of Information on Outcomes/Results

The primary use of PHMAP is to provide uniformity in evaluating PHA performance. Through PHMAP, HUD can hold PHAs in different parts of the country to the same standard and can assess individual PHA's over time to determine whether they are improving. The considerations noted above suggest some possible problems with PHMAP. HUD recognizes these potential problems and is working to improve them. It expects to monitor and adjust the system over time. However, the general consensus is that as currently constituted, PHMAP works pretty well to identify the well- and poorly-performing PHAs. The Department currently uses PHMAP in its overall management of public housing and believes that it has been a valuable resource.

PHMAP also lends itself to a risk assessment approach to monitoring PHA performance. If PHMAP correctly identifies the PHAs that are poor, standard, and good performers, HUD can then concentrate monitoring and technical assistance in ways that can help the poor performers improve. Those that are poor performers ("troubled" in PHMAP terms) are monitored intensely. They also must work with HUD to improve their performance and are the focus of technical assistance efforts. Those that are high performers receive some benefits, including public recognition as good performers, some reduction in their reporting burdens, reduced monitoring, and other incentives.

Every month the Department generates a PHMAP report. This report is distributed to the field and the PHAs. The most significant use is that PHAs that are on the "troubled" or "mod-troubled" list need to work with their field offices to improve their performance. Specifically, they are required to enter into a Memorandum of Agreement (MOA) with the field office, which is a binding contractual agreement between HUD and the PHA designed to bring about significant improvements to the PHA's management. The MOA is updated annually as long as the PHA remains troubled. Failure to improve can result eventually in HUD's taking over management of the agency.

The MOAs for PHAs that are "mod-troubled" frequently restrict agency discretion with regard to the Comprehensive Grant Program (Comp Grant) and the Comprehensive Improvements Assistance Program (CIAP). Comp Grant is a block grant that HUD uses to fund public housing modernization in larger PHAs. CIAP

is a categorical program that funds modernization in small PHAs. Being in the mod-troubled category may cause a PHA to suffer such sanctions as the imposition of budgetary limitations and denial of program participation.

PHAs that are neither troubled nor mod-troubled, but which receive a failing score on any PHMAP indicator must prepare an improvement plan, which specifies the actions and timetables it will take to correct the deficiencies that led to its receiving a failing grade.

HUD gives priority to troubled and mod-troubled PHAs in providing them with technical assistance to correct their deficiencies.

At the other end of the spectrum, being considered a high performer is considered as high praise by many executive directors. It makes the PHA and consequently the Board of Directors, the Mayor, and perhaps the community look good. There is evidence that PHAs do strive to be considered high performers. Some PHAs generate their own PHMAP scores several times a year and present them to their Board of Directors as evidence of how the PHA is being managed. PHAs may even make too much of a high PHMAP score, perhaps citing it as evidence of overall excellence. HUD notes that PHMAP just measures management performance in the areas covered by PHMAP. While it is important, a high-scoring PHA still can be deficient in many important areas of compliance.

PHMAP does not provide incentives to PHAs to improve beyond the "high-performer" level. Thus, a PHA that scores a 90 on PHMAP really has no incentive for improving to the 92 or 95 level.

PHMAP certainly plays a role in determining how HUD manages its own resources. Key decisions with regard to the types of technical assistance to be provided and who will receive it hinge on PHMAP scores. The PHMAP scores of PHAs in the jurisdiction of specific HUD field offices may provide important management information about the quality of work being done in the field. One current example is that the New Orleans field office is under close control by HUD headquarters in part because of the low PHMAP scores earned by the PHAs within Louisiana. Within field offices, PHMAP also influences resource allocation. Troubled PHAs require and receive greater staff attention.

#### Costs

The principal costs of PHMAP involve the staff time needed to implement it. PHMAP is administered by one staff person in HUD headquarters, who works full time on it. This person's supervisor also devotes a portion of his time to PHMAP. Additionally, HUD field staff review certifications, develop figures on the indicators that are not provided by the PHAs, and send out the scores and conduct confirmatory reviews. While it is not possible to estimate the workload in terms of full time equivalents, there are about 58 field staff who spend a significant portion of their time on PHMAP. And these staff have supervisors who spend lesser amounts of time on the program. Of course, the system requires additional staff support for data processing and general Departmental overhead.

PHMAP appears to be a fairly cost effective system. The principal financial costs are in HUD staffing and the data collection and reporting costs incurred by the PHAs. While these costs are not insignificant, they probably represent a savings over alternative management procedures. Essentially, even though HUD staff must generate PHMAP scores, conduct confirmatory reviews, and negotiate MOAs, this is probably a significant staff saving over having to do more hands-on assessments to identify poor performers on a case by case basis.

Similarly, with regard to PHAs, gathering and reporting data is not without cost. Under the Paperwork Reduction Act, HUD reported to OMB that the total estimated PHA burden for PHMAP requirements is 8,515 hours. But the requirement to collect and track the management information required in PHMAP undoubtedly represents a significant management improvement for many PHAs. Those that already had good management systems in place incurred fewer costs to comply with PHMAP. And on balance, PHMAP has resulted in more autonomy for well-performing PHAs, which means a reduction in their compliance costs. The troubled PHAs must incur the costs necessary to improve their systems, but they would have to do that in any system.

PHMAP has been a generally popular system for all of the parties involved in it. There has been on-going negotiation within the public housing community about the details of PHMAP, but there is consensus that the PHMAP concept is sound and that the system works reasonably well.

#### Lessons Learned

PHMAP has and will continue to change based on HUD's experience with it. There has been learning, and the Department expects this to be ongoing. Probably the most important lesson is that a PHMAP-like system will work. It has been successful enough to prompt HUD to pursue a similar system, Section Eight Management Assessment Program (SEMAP), for use in the Section 8 rental assistance program.

HUD has also learned some things about the details of PHMAP. The draft proposed rule, which is being considered within the government today, would modify several of the PHMAP indicators and weights. This is based on experience and represents minor tinkering to improve the system. For example, one change would be to eliminate tenant accounts receivable as an indicator. This would be justified on the grounds that it measures the same financial management concept as other indicators, such as uncollected rents and the size of cash reserves.

Another of the proposed adjustments would lessen the presence of some qualitative indicators, such as the presence of a system to track unit inspections. Instead, more emphasis would be placed on quantitative indicators, such as the percent of units actually inspected. This change would reduce the influence of subjective differences among field office reviewers and ensure that all PHAs nationally receive equal treatment.

Another proposed change would make it more difficult for a PHA to earn the "high-performer" rating. Over time, PHMAP scores have improved, in part because their management has improved and in part because they have learned to do the things needed to generate higher scores. As nearly 50 percent of PHAs get to be "high performers," it is appropriate to reconsider the standard. In the current system, a high performer is just one that scores 90 percent across all indicators. The Department proposes that in the future no PHA will be considered a high performer if it has not scored at least a "C" on all indicators.

Finally, the process of developing and administering PHMAP has helped teach HUD how to rate the administration of public housing. While everyone knew that a well-managed PHA would be one that maintained low vacancy rates and responded to requests for maintenance, for example, no one knew exactly how to measure whether a PHA was doing a good job with these and other critical management operations. In the process of administering PHMAP, the Department has learned better ways to count the units that ought to be included in the base for calculating vacancy rates and for tracking the response times appropriate for different types of workorders. These actions have informed public housing management standards that go beyond just generating a PHMAP score.

#### Next Steps

The direction of the Public Housing program has been the focus of an important policy debate. Legislation may change the nature of public housing, as well as the resources that are available to HUD to manage it. PHMAP already is well-established as a HUD management tool, and it is very likely that PHMAP will continue to evolve as policy takes shape.

The Department has a proposed final rule that would modify and improve some of the PHMAP indicators. As compared with the current Interim Rule, the major changes in the proposed rule are that it drops some indicators and changes some weights. For example, it drops that tenant accounts receivable indicator because it is considered to overlap rent collection and other financial indicators. It also drops the development indicator because so few PHAs are doing new development. While it is difficult to predict when a proposed rule will become final, perhaps this rule will take effect early in 1997.

The Department will continue to refine PHMAP. If changes in the public housing system make new indicators necessary or render current indicators obsolete, HUD will adjust PHMAP. If monitoring, audits, and informal feedback suggest that adjustments are needed, they will be made.

The Department also expects to conduct a formal evaluation of PHMAP to determine its validity and the effect it has on PHA performance. Such an evaluation could produce findings that lead to adjustments in the program. However, this evaluation will not begin until the proposed rule is final and has been implemented. The Department does not believe it would be useful to evaluate PHMAP presently, because the current system will be superseded in about a year.

It is important to note, too, that although the Department views PHMAP as an important step in improving PHA management, PHMAP is not the only activity in this respect. PHMAP is designed only to assess PHA management. It is not intended to assess compliance. A salient example is the Vidor, Texas PHA, which HUD recently took over. According to PHMAP, Vidor was a standard performer. That is, they collected the rents, performed modernization, handled maintenance, inspected the units, and did the rest of the things that PHMAP measures. However, they were in violation of Fair Housing requirements, and this necessitated HUD intervention. It is possible for other well-managed PHAs to be out of compliance with these and other Federal requirements.

Similarly, customer satisfaction is an important HUD goal. In the case of the public housing program, it is possible that a PHA with high PHMAP scores might still have low levels of tenant satisfaction. HUD has been pursuing efforts to survey residents of public housing to assess both the condition of their housing and their satisfaction with it. This type of information is seen as a necessary supplement to PHMAP, although HUD is not planning to add a customer service component to PHMAP. PHMAP seeks to measure objectively whether the agency is well-managed. Important as customer satisfaction is, HUD sees tenants' subjective opinions as something different from PHMAP.

#### ATTACHMENT A

This attachment contains a copy of the PHMAP regulations from 24 CFR, Part 901. It is difficult to describe PHMAP is a brief case study because of two basic complexities: (1) the intricacies of public housing management and (2) the fact that PHMAP is a mathematical formula involving 22 variables. The regulations presented here describe in precise detail the definitions of the PHMAP indicators as well as the calculations that go into generating a PHMAP score.

This attachment also contains a table that shows recent PHMAP scores for some of the larger PHAs. For example, Birmingham had an overall PHMAP score of 83.7. This was calculated from its score on the 12 indicators, which also are presented in this table.

#### ATTACHMENT B

This case study was developed by HUD's Office of Policy Development and Research (PD&R). The principal source of data was conversations with officials in HUD's Office of Public and Indian Housing (PIH) who developed and administer the PHMAP program, as well as officials in PD&R who have done research on public housing management and who helped to develop PHMAP.

In addition, this study relied on the following written sources:

- o 24 CFR, Part 901 (interim rule)
- o HUD Handbook, 7460.5, PHMAP Handbook
- o HUD Handbook, 7460.7, REV-2, The Field Office Monitoring of PHAs Handbook
- o HUD, Office of Inspector General Audit Report, 93-HQ-101-0006, February 4, 1993, "Limited Review of the PHMAP Program."
- o 24 CFR, Part 901, proposed rule. Published for comment on May 6, 1996.